AEP
OHIO
A unit of American Electric Power

AEP Ohio
Muskingum River Plant
1501 Sparling Road
Waterford, OH 45786-6104
AEPOhio.com

March 9, 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Joseph Solt
Chemical Emergency Preparedness and Prevention Section
U. S. Environmental Protection Agency – Region 5
77 West Jackson Boulevard (SC-5J)
Chicago, Illinois 60604

RE: AEP Muskingum River Plant
CERCLA Continuous Release Submission #522754

Dear Mr. Solt:

On February 27, 2012, the American Electric Power (AEP) Muskingum River Plant received a letter from U. S. EPA requesting confirmation of the information contained within the Comprehensive Environmental Response, Compensation and Liability Act continuous release report submitted by AEP for Muskingum River Plant on March 4, 2009.

This letter is to verify the accuracy of the information contained within the March 4, 2009 report except for one item. An amendment is required to be made to our Person in Charge: please remove Mr. David Wickline and insert Mr. Jeffrey Wiegand as Muskingum River's new Person in Charge.

If you have any questions, or require any additional information, please call Jim Ludwig at 740-984-3468.

Sincerely,

Jeffrey L. Wiegand
Plant Manager – Muskingum River Plant
Ohio Power Company

OH (12)

AEP OHIO
A unit of American Electric Power

AEP Ohio
Muskingum River Plant
1501 Sperling Road
Waterford, OH 45786-6104
AEPOhio.com

CERTIFIED MAIL
Return Receipt Requested

MAY 15 2009

March 4, 2009

U. S. EPA Region V
Office of CEEP Chemical Preparedness
77 West Jackson Boulevard
Chicago, Illinois 60604

Subject: **First Anniversary Follow-up Report – Muskingum River Plant**

Dear Mr. Sandstrom:

This letter is submitted as the First Anniversary Follow-up Report to the notification made on February 7, 2008 at 3:25 p.m. EST, by Mr. Joseph Campbell of Ohio Power Company, who, at that time notified the National Response Center (NRC) of a change in the normal range of continuous release of Sulfuric Acid, a reportable substance, from our Muskingum River Plant (CR-ERNS #522755 and #522754). The February 7, 2008 notification of change revised the normal range of emissions for Sulfuric Acid (CASRN # 7664939) from Unit 5 of the Muskingum River Plant. The range was revised to be from 2,097 to 17,799 pounds per 24-hour period for Unit 5. A written report was submitted on March 5, 2008.

These sulfuric acid emissions are routine in nature, anticipated, intermittent and incidental to the normal operation of the facility. Based upon these characteristics, these emissions are eligible for continuous release reporting. Actual releases will vary with seasonal operation of the equipment, actual hours of operation, fuel quality and other factors, but the released quantity will remain within these newly established ranges.

This First Anniversary Follow-up Report is a release information update in which no changes are being made to the detailed information previously submitted. Therefore, we are only revising the signed Section I to indicate the type of report.

Please find enclosed an original signed "First Anniversary Follow-up Report" (Section I) for Muskingum River Plant. Copies of the previously submitted Section II, (Source Information) for each emissions unit and Section III, calculation of the SSI (Upper Bound) for each reported substance are attached for your information.

If you have any questions concerning this notice, please do not hesitate to contact James D. Ludwig by telephone at (740) 984-3468 or by e-mail at jdludwig@aep com.

Sincerely,

David D. Wickline
General Plant Manager
Muskingum River Plant

Enclosure

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack C8014

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release
Nitrogen oxide	10102439	430,062	194,207	365	30,012,000	12
Nitrogen dioxide	10102440	22,635	10,221	365	1,600,000	12
Hydrochloric acid	7647010	21,150	9,015	365	2,400,000	12
Hydrogen fluoride	7664393	1,418	605	365	268,000	12
Sulfuric acid	7664939	7,826	3,013	365	1,314,000	12
Mercury	7439976	1.2	0.5	365	349	12
Selenium dioxide	7446084	39.0	11.8	365	7,820	12
Calcium arsenate	7778441	10.5	2.7	365	988	12
Cyanides	57125	25.1	10.2	365	4,902	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (Ci) are appropriate.*

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary

Name of Source: Muskingum River Stack 5

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__

2. Identify the activity(ies) that results in the release from this source (e g , batch process, filling of a storage tank) If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302 8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification

3. Identify below how you established the pattern of release and calculated release estimates

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents do not qualify for reduced reporting under CERCLA section 103(f)(2) Unanticipated events are not incidental to normal operations and by definition, are not continuous or anticipated and are not sufficiently predictable or regular to be considered stable in quantity and rate*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack 5

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARAIE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to EACH medium as a separate source and complete Section II, Parts A, B, and C, of this format for EACH medium affected.

⊘ AIR __x__ (stack __x__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source

- If identified source is a stack, indicate stack height: 828 feet or meters; OR
- If identified source is an area source (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters

⊘ SURFACE WATER ____ (stream ____, lake ____, or other _____)

- If the release affects any surface water body, give the name of the water body.

  _____

- If the release affects a stream, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; OR
- If the release affects a lake, give the surface area of the lake in acres and the average depth in meters

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ SOIL OR GROUND WATER ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. If this information is not provided, EPA will make conservative assumptions about the appropriate values. Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River. Stack 5

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release
Nitrogen oxide	10102439	127,717	126,507	365	23,400,000	12
Nitrogen dioxide	10102440	6,722	3,775	365	1,200,000	12
Hydrochloric acid	7647010	13,655	6,692	365	3,400,000	12
Hydrogen Fluoride	7664393	916	449	365	221,000	12
Sulfuric acid	7664939	17,799	2,097	365	348,367	12
Selenium dioxide	7446084	25.1	8.7	365	6,630	12
Calcium arsenate	7778441	11.5	2.2	365	728	12
Cyanides	57125	14.1	8.3	365	3,902	12
Mercury	7439976	0.7	0.3	365	153	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (Ci) are appropriate.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen oxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kgs or Gal~~)
Muskingum River Stack CS014	430,062
Muskingum River Stack 5	127,717

TOTAL - SSI trigger for this hazardous substance release*: 557,779

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Gg~~)
Muskingum River Stack CS014	22,635
Muskingum River Stack 5	6,722

TOTAL - SSI trigger for this hazardous substance release*: 29,357

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrochloric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs. ~~kgs. or Ci~~)
Muskingum River Stack CS014	21,150
Muskingum River Stack 5	13,655

TOTAL - SSI trigger for this hazardous substance release*: 34,805

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrogen fluoride

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1,418
Muskingum River Stack 5	916

TOTAL - SSI trigger for this hazardous substance release*: 2,334

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Sulfuric acid

To calculate the SSI trigger (i e, the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., kg, or Ci)
Muskingum River Stack CS014	7,826
Muskingum River Stack 5	17,799

TOTAL - SSI trigger for this hazardous substance release* : 25,625

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Mercury

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1.2
Muskingum River Stack 5	0.7

TOTAL - SSI trigger for this hazardous substance release*: 1.9

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: selenium dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Gal~~)
Muskingum River Stack CS014	39.0
Muskingum River Stack 5	25.1

TOTAL - SSI trigger for this hazardous substance release*: 64.1

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: calcium arsenate

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs. ~~kg or Gi~~)
Muskingum River Stack CS014	10.5
Muskingum River Stack 5	11.5

TOTAL - SSI trigger for this hazardous substance release*: 22.0

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION	CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: cyanides

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs. ~~kg or Ci~~)
Muskingum River Stack CS014	25.1
Muskingum River Stack 5	14.1

TOTAL - SSI trigger for this hazardous substance release*: 39.2

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

cc w/att:

Ohio Environmental Protection Agency
Attn: State Emergency Response Commission
122 South Front Street
Columbus, OH 43215

LEPC Miranda Mullen
Morgan Cnty. EMA Director
60 South Fourth St.
McConnelsville, OH 43756

LEPC Jeff Lauer
Washington Cnty. LEPC
205 Putnam St.
Marietta, OH 45750

Beverly Volunteer Fire Department
204 Fifth Street
Beverly, OH 45715

Ohio Environmental Protection Agency
Attn: Mr. Dean Ponchak
2195 Front Street
Logan, OH 43138

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

David Wickline
Muskingum River Unit Nos. 1,2,3,4 and 5
Rural Route # 2
Waterford, Ohio 47586

Re: Continuous Release Submission #522754

Dear Mr. Wickline:

The U.S. Environmental Protection Agency (EPA) Region 5 is currently investigating the source, extent, and nature of releases of hazardous substances at your facility. In the past, your facility submitted a continuous release report under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). For your convenience, enclosed with this letter is a copy of your latest continuous release submission. Pursuant to the authority of Section 104(e) of the CERCLA, 42 U.S.C. § 9604(e), you are hereby requested to verify the information submitted in the enclosed continuous release report. Compliance with this information request is mandatory.

CERCLA Section 103(f)(2) and the federal regulations published at Title 40 of the Code of Federal Regulations, Sections 302.8 and 355.40 (40 CFR §§ 302.8 and 355.40) allow reduced reporting requirements for releases of hazardous substances that are "continuous" and "stable in quantity and rate." Please note, however, that CERCLA Section 103(f)(2) and 40 CFR §§ 302.8 and 355.40 require that persons or entities that choose these reduced reporting requirements by filing continuous release reports are further required to notify EPA of statistically significant increases in the release, as well as changes in the source or composition, normal range, or any other information reported in the submitted continuous release reports. A copy of the regulations at 40 CFR §§ 302.8 and 355.40 are attached for your reference.

Your written response verifying the information in your continuous release report is due within 20 days of receipt of this letter. Please send your response to:

Joseph Solt
Chemical Emergency Preparedness
and Prevention Section
U.S. EPA – Region 5
77 West Jackson Boulevard (SC-5J)
Chicago, Illinois 60604

If you have any questions or concerns regarding this letter please contact Ruth McNamara of my staff at (312) 353-3193. For questions regarding a new or revised continuous release submission contact Joe Solt (312) 353-4583.

Sincerely,

Michael E. Hans, Chief
Chemical Emergency Preparedness
and Prevention Section

Enclosures: Submitted Continuous Release Information
Regulations at 40 CFR §§ 302.8 and 355.40

OH 117

AEP
OHIO
A unit of American Electric Power

AEP Ohio
Muskingum River Plant
1501 Sparling Road
Waterford, OH 45786-6104
AEPOhio.com

Enclosed is CR-ERNS

CERTIFIED MAIL
Return Receipt Requested

Received Feb

March 5, 2008

U. S. EPA Region 5
Superfund Division
77 West Jackson Boulevard
Mail Code S-6J
Chicago, Illinois 60604

Attention: Mr. Richard Karl, Director

Subject: Written Notification of a Change in the Normal Range of Continuous Releases – Muskingum River Plant

Dear Mr. Karl:

On February 7, 2008 at 3:25 p.m. EST, Mr. Joseph Campbell of Ohio Power Company notified the National Response Center (NRC) of a change in the normal range of continuous release of Sulfuric Acid, a reportable substance, from our Muskingum River Plant (CR-ERNS #522755 and #522754). The call to the NRC was assigned incident report #861783.

The previously reported range for the continuous release of sulfuric acid within a 24-hour period from the Muskingum River Plant Stack No. 5 was 361 to 1053 pounds. The new normal range of emissions for the continuous release of Sulfuric Acid (CASRN # 7664939) for Unit 5 should now be listed as 2,097 to 17,799 pounds per 24-hour period. The expected ranges previously reported for the continuous release of sulfuric acid emissions from the Muskingum River Stack CS014 are unchanged.

These sulfuric acid emissions are routine in nature, anticipated, intermittent and incidental to the normal operation of the facility. Based upon these characteristics, these emissions are eligible for continuous release reporting. Actual releases will vary with seasonal operation of the equipment, actual hours of operation, fuel quality and other factors, but the released quantity will remain within these newly established ranges.

The change in the normal range of sulfuric acid emissions was the result of a re-evaluation of the calculations used to estimate the emissions and the installation and operation of an air emission control system at Muskingum River Plant. The normal range for other substances previously reported as a continuous release will not change for the Muskingum River Plant.

Enclosed are the revised forms for the Muskingum River Plant. Specifically, we are providing a revised Section I, (General Information), Section II, (Source Information) for each emissions unit and Section III, calculation of the SSI (Upper Bound) for each reported substance.

If you have any questions concerning this notice, please do not hesitate to contact James D. Ludwig by telephone at (740) 984-3468 or by e-mail at jdludwig@aep.com.

Sincerely,

Mark C. Studenic

Mark C. Studenic
General Plant Manager
Muskingum River Plant

Enclosure

MCS:JDL:clb

cc w/att:

Ohio Environmental Protection Agency
Attn: State Emergency Response Commission
122 South Front Street
Columbus, OH 43215

LEPC Miranda Mullen
Morgan Cnty. EMA Director
60 South Fourth St.
McConnelsville, OH 43756

LEPC Jeff Lauer
Washington Cnty. LEPC
205 Putnam St.
Marietta, OH 45750

Beverly Vol. Fire Department
Fifth Street
Beverly, OH 45715
Attn: Fire Chief

Lowell-Adams Vol. Fire Department
Lock Street
Lowell, OH 45744
Attn: Fire Chief

Ohio Environmental Protection Agency
Attn: Mr. Dean Ponchak
2195 Front Street
Logan, OH 43138

SECTION I: GENERAL INFORMATION

CR-ERNS Number: 522755 and 522754

Date of Initial Release:

Date of Initial Call to NRC: 03/13/00

Type of Report: Indicate below the type of report you are submitting.

- [ ] Initial Written Notification
- [ ] First Anniversary Follow-up Report
- [ ] Written Notification of a Change to Initial Notification
- [x] Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355 4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

Mark Studenic, Plant Manager
Name and Position

MARCH 05, 2008
Date

Mark C Studenic
Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Muskingum River Unit Nos. 1, 2, 3, and 4; and Muskingum River Unit No. 5

Person in Charge of Facility or Vessel

Name of Person in Charge: Mark Studenic

Position: Plant Manager

Telephone No.: (740) 984-3452 Alternate Telephone No.: ( )

Facility Address or Vessel Port of Registration

Street: Rural Route No. 2 - Box 310 County: Morgan & Washington

City: Waterford State: OH Zip Code: 45786

Dun and Bradstreet Number for Facility: 063765341

Facility/Vessel Location

Latitude	Deg 039	Min 35	Sec 25	
Longitude	Deg 081	Min 40	Sec 46	

Vessel LORAN Coordinates

Part B. Population Information

Population Density

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

- ____ 0 - 50 persons
- x 51 - 100 persons
- ____ 101 - 500 persons
- ____ 501 - 1000 persons
- ____ more than 1000 persons

Sensitive Populations and Ecosystems Within One Mile Radius

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
State listed endangered and threatened species	Less than one mile at multiple locations

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3 Identify below how you established the pattern of release and calculated release estimates.

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills pipe ruptures, equipment failures, emergency shutdowns, or accidents do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack CS014

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g , a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____ , lake ____ , or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**
- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity of Surface Water _____ feet/second

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release
Nitrogen oxide	10102439	430,062	194,207	365	30,012,000	12
Nitrogen dioxide	10102440	22,635	10,221	365	1,600,000	12
Hydrochloric acid	7647010	21,150	9,015	365	2,400,000	12
Hydrogen fluoride	7664393	1,418	605	365	268,000	12
Sulfuric acid	7664939	7,826	3,013	365	1,314,000	12
Mercury	7439976	1.2	0.5	365	349	12
Selenium dioxide	7446084	39.0	11.8	365	7,820	12
Calcium arsenate	7778441	10.5	2.7	365	988	12
Cyanides	57125	25.1	10.2	365	4,902	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3. Identify below how you established the pattern of release and calculated release estimates

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack 5

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** _x_ (stack _x_ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____ , lake ____ , or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**
- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity of Surface Water _____ feet/second

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

11,700 Tons

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release
Nitrogen oxide	10102439	127,717	126,507	365	23,400,000	12
Nitrogen dioxide	10102440	6,722	3,775	365	1,200,000	12
Hydrochloric acid	7647010	13,655	6,692	365	3,400,000	12
Hydrogen Fluoride	7664393	916	449	365	221,000	12
Sulfuric acid	7664939	17,799	2,097	365	348,367	12
Selenium dioxide	7446084	25.1	8.7	365	6,630	12
Calcium arsenate	7778441	11.5	2.2	365	728	12
Cyanides	57125	14.1	8.3	365	3,902	12
Mercury	7439976	0.7	0.3	365	153	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen oxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	430,062
Muskingum River Stack 5	127,717

TOTAL - SSI trigger for this hazardous substance release* : 557,779

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Ci~~)
Muskingum River Stack CS014	22,635
Muskingum River Stack 5	6,722

TOTAL - SSI trigger for this hazardous substance release* : 29,357

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrochloric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs. ~~kg, or Ci~~)
Muskingum River Stack CS014	21,150
Muskingum River Stack 5	13,655

TOTAL - SSI trigger for this hazardous substance release* : 34,805

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrogen fluoride

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1,418
Muskingum River Stack 5	916

TOTAL - SSI trigger for this hazardous substance release* : 2,334

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Sulfuric acid

To calculate the SSI trigger (i e , the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., kg, or Ci)
Muskingum River Stack CS014	7,826
Muskingum River Stack 5	17,799

TOTAL - SSI trigger for this hazardous substance release* : 25,625

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Mercury

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1.2
Muskingum River Stack 5	0.7

TOTAL - SSI trigger for this hazardous substance release* : 1.9

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: selenium dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	39.0
Muskingum River Stack 5	25.1

TOTAL - SSI trigger for this hazardous substance release* : 64.1

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: calcium arsenate

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	10.5
Muskingum River Stack 5	11.5

TOTAL - SSI trigger for this hazardous substance release*: 22.0

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: cyanides

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	25.1
Muskingum River Stack 5	14.1

TOTAL - SSI trigger for this hazardous substance release* : 39.2

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

OA (217)

fldr-NRC@COMDT.USCG.MIL To

02/07/2008 02:41 PM Subject NRC#861783

NATIONAL RESPONSE CENTER 1-800-424-8802
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***
Information released to a third party shall comply with any applicable federal and/or state Freedom of Information and Privacy Laws

Incident Report # 861783

INCIDENT DESCRIPTION

*Report taken by: CIV ABAYOMI SNOWDEN at 15:27 on 07-FEB-08
Incident Type: CONTINUOUS
Incident Cause: OTHER
Affected Area:
The incident occurred on 07-FEB-08 at 12:00 local time.
Affected Medium: AIR

REPORTING PARTY

Name: JOE CAMPBELL
Organization: AEP
Address: 1501 SPARLING RD.
WATERFORD, OH 45786
AEP called for the responsible party.
PRIMARY Phone: (740)9843463
Type of Organization: PRIVATE ENTERPRISE

SUSPECTED RESPONSIBLE PARTY

Name: JOE CAMPBELL
Organization: AEP
Address: 1501 SPARLING RD.
WATERFORD, OH 45786
PRIMARY Phone: (740)9843463

INCIDENT LOCATION

1501 SPARLING RD. County: WASHINGTON
City: WATERFORD State: OH Zip: 45786

RELEASED MATERIAL(S)

CHRIS Code: SFA Official Material Name: SULFURIC ACID
Also Known As:
Qty Released: 0 UNKNOWN AMOUNT

DESCRIPTION OF INCIDENT

CALLER IS REPORTING A CONTINUOS RELEASE. CALLER SAYS THEY WILL RUN THERE S.C.R (SELECTIVE CATALYST REDUCTION) ALL YEAR AROUND. RESULTING IN A INCREASE OF SULFURIC ACID YEARLY. THEY ARE EXCEEDING THEY UPPER RANGE OF WHAT THEY PREVIOUSLY REPORTED IN THE YEAR 200. THE CALLERS C.A.S.R.N NUMBER IS 7664939.

SENSITIVE INFORMATION

INCIDENT DETAILS

Building ID:
Type of Fixed Object: POWER PLANT
Power Generating Facility: YES
Generating Capacity: 620
Type of Fuel: NATURAL
NPDES:
NPDES Compliance: UNKNOWN
Continuous Release Type: STATISTICALLY SIGNIFICANT INCREASE
Initial Continuous Release Number:
Continuous Release Permit: 522755

IMPACT

Fire Involved: NO Fire Extinguished: UNKNOWN

INJURIES: NO Hospitalized: Empl/Crew: Passenger:
FATALITIES: NO Empl/Crew: Passenger: Occupant:
EVACUATIONS: NO Who Evacuated: Radius/Area:

Damages: NO

Closure Type	Description of Closure	Hours Closed	Direction of Closure
Air: N			
Road: N			Major Artery: N
Waterway: N			
Track:			

Environmental Impact: NO
Media Interest: NONE Community Impact due to Material:

REMEDIAL ACTIONS

NOTIFYING OF THE NEW WAY THAT THEY OPERATE THEIR UNIT
Release Secured: YES
Release Rate:
Estimated Release Duration:

WEATHER

ADDITIONAL AGENCIES NOTIFIED

Federal: NONE
State/Local: NONE
State/Local On Scene: NONE
State Agency Number: NONE

NOTIFICATIONS BY NRC

ATLANTIC STRIKE TEAM (MAIN OFFICE)
07-FEB-08 15:41 (609)7240008
DOT CRISIS MANAGEMENT CENTER (MAIN OFFICE)
07-FEB-08 15:41 (202)3661863
CONT. RELEASE ATTN: L. BEASLEY (MAIN OFFICE)
07-FEB-08 15:41 (703)6039086
CONT. RELEASE ATTN: B. SANDSTROM (MAIN OFFICE)
07-FEB-08 15:41 (312)8866028
U.S. EPA V (MAIN OFFICE)

(312)3532318
NOAA RPTS FOR OH (MAIN OFFICE)
07-FEB-08 15:41 (206)5264911
NATIONAL RESPONSE CENTER HQ (MAIN OFFICE)
(202)2671136
OHIO DEPARTMENT OF HEALTH (ATTN: LAURIE BLAKE)
07-FEB-08 15:41 (614)7528451
ORSANCO ATTN: J. SCHULTE (MAIN OFFICE)
07-FEB-08 15:41 (513)2317719
SECTOR OHIO VALLEY (COMMAND CENTER)
07-FEB-08 15:41 (502)7995422
OH EPA ATTN: DUTY OFFICER (MAIN OFFICE)
07-FEB-08 15:41 (614)2240946
WEST VIRGINIA DEP (MAIN OFFICE)
07-FEB-08 15:41 (304)5585938
WV DEP ATTN: DUTY OFFICER (MAIN OFFICE)
07-FEB-08 15:41 (800)6423074
WV DEP SPILL LINE (MAIN OFFICE)
07-FEB-08 15:41 (304)3683960

ADDITIONAL INFORMATION

CALLER HAS NO ADDITIONAL INFORMATION.

CONTINUOUS RELEASE MATERIAL

CHRIS Code: SFA Official Material Name: SULFURIC ACID
Also Known As:
Upper Bounds: /

*** END INCIDENT REPORT #861783 ***

Report any problems or Fax number changes by calling 1-800-424-8802
PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil

MAR 10 2009

OH

AEP OHIO
A unit of American Electric Power

AEP Ohio
Muskingum River Plant
1501 Sparling Road
Waterford, OH 45786-6104
AEPOhio.com

CERTIFIED MAIL
Return Receipt Requested

~~March 4, 2009~~ 3/5/09

U. S. EPA Region V
Office of CEEP Chemical Preparedness
77 West Jackson Boulevard
Chicago, Illinois 60604

Subject: **First Anniversary Follow-up Report – Muskingum River Plant**

Dear Mr. Sandstrom:

This letter is submitted as the First Anniversary Follow-up Report to the notification made on February 7, 2008 at 3:25 p.m. EST, by Mr. Joseph Campbell of Ohio Power Company, who, at that time notified the National Response Center (NRC) of a change in the normal range of continuous release of Sulfuric Acid, a reportable substance, from our Muskingum River Plant (CR-ERNS #522755 and #522754). The February 7, 2008 notification of change revised the normal range of emissions for Sulfuric Acid (CASRN # 7664939) from Unit 5 of the Muskingum River Plant. The range was revised to be from 2,097 to 17,799 pounds per 24-hour period for Unit 5. A written report was submitted on March 5, 2008.

These sulfuric acid emissions are routine in nature, anticipated, intermittent and incidental to the normal operation of the facility. Based upon these characteristics, these emissions are eligible for continuous release reporting. Actual releases will vary with seasonal operation of the equipment, actual hours of operation, fuel quality and other factors, but the released quantity will remain within these newly established ranges.

This First Anniversary Follow-up Report is a release information update in which no changes are being made to the detailed information previously submitted. Therefore, we are only revising the signed Section I to indicate the type of report.

Please find enclosed an original signed "First Anniversary Follow-up Report" (Section I) for Muskingum River Plant. Copies of the previously submitted Section II, (Source Information) for each emissions unit and Section III, calculation of the SSI (Upper Bound) for each reported substance are attached for your information.

If you have any questions concerning this notice, please do not hesitate to contact James D. Ludwig by telephone at (740) 984-3468 or by e-mail at jdludwig@aep.com.

Sincerely,

David D. Wickline
General Plant Manager
Muskingum River Plant

Enclosure

SECTION I: GENERAL INFORMATION	CR-ERNS Number: 522755 and 522754
Date of Initial Release:	Date of Initial Call to NRC: 03/13/00

Type of Report: Indicate below the type of report you are submitting.

- ☐ Initial Written Notification
- ☐ First Anniversary Follow-up Report
- ☐ Written Notification of a Change to Initial Notification
- ☒ Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

David Wickline, Plant Manager
Name and Position

7/5/2009
Date

Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Muskingum River Unit Nos. 1,2,3, and 4; and Muskingum River Unit No. 5

Person in Charge of Facility or Vessel

Name of Person in Charge: David Wickline
Position: Plant Manager
Telephone No. (740) 984-2321 Alternate Telephone No. ( )

Facility Address or Vessel Port of Registration

Street: Rural Route No. 2 - Box 310 County: Morgan & Washington
City: Waterford State: OH Zip Code: 45786

Dun and Bradstreet Number for Facility: 063765341

Facility/Vessel Location

Latitude	Deg 039	Min 35	Sec 25
Longitude	Deg 081	Min 40	Sec 46

Vessel LORAN Coordinates:

Part B. Population Information

Population Density

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

- ___ 0 - 50 persons
- X 51 - 100 persons
- ___ 101 - 500 persons
- ___ 501 - 1000 persons
- ___ more than 1000 persons

Sensitive Populations and Ecosystems Within One Mile Radius

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
State Listed endangered and threatened species	Less than one mile at multiple locations

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

1. Indicate whether the release from this source is either:

continuous without interruption _____ OR routine, anticipated, intermittent X

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3 Identify below how you established the pattern of release and calculated release estimates.

X Past release data	X Knowledge of the facility/vessel's operations and release history	X Engineering estimate
X AP-42	X Best professional judgment	_____ Other (explain)

* *Note that unanticipated events, such as spills pipe ruptures, equipment failures, emergency shutdowns, or accidents do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate*

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack CS014

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e , air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e g , a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected

⊘ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~ **OR**
- If identified source is an **area source** (e g , waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____ , lake ____ , or other _____)

- If the release affects any **surface water body**, give the name of the water body

  _____
- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**
- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters

  Gas Exit Velocity _____ feet/second or meters/second

  Gas Temperature _____ degrees Fahrenheit, Kelvin or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release
Nitrogen oxide	10102439	430,062	194,207	365	30,012,000	12
Nitrogen dioxide	10102440	22,635	10,221	365	1,600,000	12
Hydrochloric acid	7647010	21,150	9,015	365	2,400,000	12
Hydrogen fluoride	7664393	1,418	605	365	268,000	12
Sulfuric acid	7664939	7,826	3,013	365	1,314,000	12
Mercury	7439976	1.2	0.5	365	349	12
Selenium dioxide	7446084	39.0	11.8	365	7,820	12
Calcium arsenate	7778441	10.5	2.7	365	988	12
Cyanides	57125	25.1	10.2	365	4,902	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__.

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification

3. Identify below how you established the pattern of release and calculated release estimates

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents do not qualify for reduced reporting under CERCLA section 103(f)(2) Unanticipated events are not incidental to normal operations and by definition are not continuous or anticipated and are not sufficiently predictable or regular to be considered stable in quantity and rate*

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack 5

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** _x_ (stack _x_ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters

⊘ **SURFACE WATER** ____ (stream ____, lake ____, or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity of Surface Water _____ feet/second

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of *Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.*)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. or kg per day)* Upper Bound	Normal Range (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. or kg)*	Months of the Release
Nitrogen oxide	10102439	127,717	126,507	365	23,400,000	12
Nitrogen dioxide	10102440	6,722	3,775	365	1,200,000	12
Hydrochloric acid	7647010	13,655	6,692	365	3,400,000	12
Hydrogen Fluoride	7664393	916	449	365	221,000	12
Sulfuric acid	7664939	17,799	2,097	365	348,367	12
Selenium dioxide	7446084	25.1	8.7	365	6,630	12
Calcium arsenate	7778441	11.5	2.2	365	728	12
Cyanides	57125	14.1	8.3	365	3,902	12
Mercury	7439976	0.7	0.3	365	153	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen oxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Ci~~)
Muskingum River Stack CS014	430,062
Muskingum River Stack 5	127,717

TOTAL - SSI trigger for this hazardous substance release* : 557,779

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Gg~~)
Muskingum River Stack CS014	22,635
Muskingum River Stack 5	6,722

TOTAL - SSI trigger for this hazardous substance release* : 29,357

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrochloric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs ~~, kg, or Ci~~)
Muskingum River Stack CS014	21,150
Muskingum River Stack 5	13,655

TOTAL - SSI trigger for this hazardous substance release*: 34,805

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the exient that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrogen fluoride

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Cr~~)
Muskingum River Stack CS014	1,418
Muskingum River Stack 5	916

TOTAL - SSI trigger for this hazardous substance release* : 2,334

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Sulfuric acid

To calculate the SSI trigger (i e , the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., kg, or Ci)
Muskingum River Stack CS014	7,826
Muskingum River Stack 5	17,799

TOTAL - SSI trigger for this hazardous substance release* : 25,625

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Mercury

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1.2
Muskingum River Stack 5	0.7

TOTAL - SSI trigger for this hazardous substance release* : 1.9

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: selenium dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Gi~~)
Muskingum River Stack CS014	39.0
Muskingum River Stack 5	25.1

TOTAL - SSI trigger for this hazardous substance release*: 64.1

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: calcium arsenate

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg~~ or ~~Gg~~)
Muskingum River Stack CS014	10.5
Muskingum River Stack 5	11.5

TOTAL - SSI trigger for this hazardous substance release*: 22.0

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: cyanides

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., kg, ppb, Ci)
Muskingum River Stack CS014	25.1
Muskingum River Stack 5	14.1

TOTAL - SSI trigger for this hazardous substance release*: 39.2

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

cc w/att:

Ohio Environmental Protection Agency
Attn: State Emergency Response Commission
122 South Front Street
Columbus, OH 43215

LEPC Miranda Mullen
Morgan Cnty. EMA Director
60 South Fourth St.
McConnelsville, OH 43756

LEPC Jeff Lauer
Washington Cnty. LEPC
205 Putnam St.
Marietta, OH 45750

Beverly Volunteer Fire Department
204 Fifth Street
Beverly, OH 45715

Ohio Environmental Protection Agency
Attn: Mr. Dean Ponchak
2195 Front Street
Logan, OH 43138

American Electric Power
Muskingum River Plant
Rt 2 Box 310
Waterford, OH 45786 9636

AEP
AMERICAN® ELECTRIC POWER

April 12, 2000

U.S. EPA Region V
Office of CEPP Chemical Preparedness
77 West Jackson Blvd.
Chicago, Illinois 60604

Attention: William Sandstrom

Muskingum River Plant
Waterford, Morgan Washington Counties, Ohio
CR-ERNS Number Units 1-4 522755 - Unit 5 - 522754
Initial Continuous Release Written Notification

Dear Sir or Madam:

Enclosed please find an initial written continuous release report for American Electric Power's (AEP) Muskingum River Plant. This report is being submitted in accordance with 40 CFR and 302.8 to supplement the initial telephone notification made to the National Response Center (NRC), the State Emergency Response Commission (SERC) and the Local Emergency Planning Commission (LEPC) on March 13, 2000. As noted below, these reports contain information about the emissions associated with normal operations at our plant, and are not anticipated to result in any adverse impacts within Ohio or in any adjacent State.

This report was prompted by the issuance of an interim guidance document by the Environmental Protection Agency on December 21, 1999, giving notice of specific interpretations of the definition of a "federally permitted release" under Section 101 (10) (H) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The interim guidance asserts that most permit limitations and control requirements established under the Clean Air Act do not qualify as "federally permitted releases," even though such emissions are part of the normal operation of these air emission sources and are directly or indirectly controlled by those permits and regulations. AEP does not agree with the positions announced in the interim guidance, and has submitted comments to EPA as requested in the notice. However, the enclosed report is based on the interpretations announced in the interim guidance.

Please note that the emissions reported in the enclosed report represent a range of the levels at which individual hazardous constituents that may be present in the emissions associated with the normal operations of the major sources at our power plant. They do not represent "emergency" conditions, pose threats to public health or welfare, or require specific emergency response or planning activities. Actual emissions will vary with hours of operation, fuel quality, and other factors.

If you have any questions concerning the enclosed report, please contact James D. Ludwig of my staff at (740) 984-3468.

Sincerely yours,

Tracy A. Elich

Tracy A. Elich
Business Manager

TAE:JDL:jlp-contrelease

cc: SERC
Ohio EPA
122 South Front St.
Columbus, OH 43215

Barbara Hemeger
Washington County EMA Director
205 Putnam Street
Marietta, OH 45750

Julie Gridley
Morgan County EMA Director
P. O. Box 388 - 37E Main St.
McConnelsville, OH 43756

SECTION I: GENERAL INFORMATION

CR-ERNS Number: 522755 and 522754

Date of Initial Call to NRC: 03/13/00

Type of Report: Indicate below the type of report you are submitting.

- [X] Initial Written Notification
- [ ] First Anniversary Follow-up Report
- [ ] Written Notification of a Change to Initial Notification
- [ ] Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

Dan Kohler, Plant Manager
Name and Position

4/12/00
Date

MC Studenic for DJ KOHLER
Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Muskingum River Unit Nos. 1, 2, 3 and 4; and Muskingum River Unit No. 5

Person in Charge of Facility or Vessel

Name of Person in Charge: Dan Kohler

Position: Plant Manager

Telephone No. (740) 984-3450 Alternate Telephone No. ( )

Facility Address or Vessel Port of Registration

Street: Rural Route No. 2 - Box 310 County: Morgan and Washington

City: Waterford State: OH Zip Code: 45786

Dun and Bradstreet Number for Facility: 063765341

Facility/Vessel Location

Latitude	Deg 039	Min 35	Sec 26	**Vessel LORAN Coordinates**	
Longitude	Deg 081	Min 40	Sec 46		

Part B. Population Information

Population Density

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

- ____ 0 - 50 persons
- ____ 101 - 500 persons
- ____ more than 1000 persons
- __X__ 51 - 100 persons
- ____ 501 - 1000 persons

Sensitive Populations and Ecosystems Within One Mile Radius

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
State listed endangered and threatened species	Less than one mile at multiple locations

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__.

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3. Identify below how you established the pattern of release and calculated release estimates.

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack CS014

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~ **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____ , lake ____ , or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. ~~or kg~~ per day)* Upper Bound	Normal Range (in lbs. ~~or kg~~ per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Nitrogen oxide	10102439	412,216	194,207	365	18,400,000	12
Nitrogen dioxide	10102440	21,696	10,221	365	900,000	12
Hydrochloric acid	7647010	20,273	9,015	365	2,600,000	12
Hydrogen fluoride	7664393	1,360	605	365	260,000	12
Sulfuric acid	7664939	7,442	3,013	365	1,500,000	12
Mercury	7439976	1.1	0.5	365	281	12
Selenium dioxide	7446084	26.5	11.8	365	5,500	12
Calcium arsenate	7778441	7.4	2.7	365	430	12
Cyanides	57125	21.4	10.2	365	2,500	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__.

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of ~~fossil fuels~~ coal to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3. Identify below how you established the pattern of release and calculated release estimates.

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

** Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack 5

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** _X_ (stack _X_ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____ , lake ____ , or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity of Surface Water _____ feet/second

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. ~~or kg~~ per day)* Upper Bound	Normal Range (in lbs. ~~or kg~~ per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Nitrogen oxide	10102439	590,990	126,507	365	23,300,000	12
Nitrogen dioxide	10102440	6,658	3,775	365	1,200,000	12
Hydrochloric acid	7647010	13,526	6,692	365	3,200,000	12
Hydrogen fluoride	7664393	907	449	365	160,000	12
Sulfuric acid	7664939	957	361	365	140,000	12
Selenium dioxide	7446084	17.7	8.7	365	3,500	12
Calcium arsenate	7778441	8.6	2.2	365	280	12
Cyanides	57125	12.7	8.3	365	3,700	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen oxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., kg~~s or Ci~~)
Muskingum River Stack CS014	412,216
Muskingum River Stack 5	590,990

TOTAL - SSI trigger for this hazardous substance release* : 1,029,206 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Ci~~)
Muskingum River Stack CS014	21,696
Muskingum River Stack 5	6,658

TOTAL - SSI trigger for this hazardous substance release* : 28,354 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrochloric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs. ~~kg or Ci~~)
Muskingum River Stack CS014	20,273
Muskingum River Stack 5	13,526

TOTAL - SSI trigger for this hazardous substance release* : 33,799 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrogen fluoride

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg. or Ci~~)
Muskingum River Stack CS014	1,360
Muskingum River Stack 5	907

TOTAL - SSI trigger for this hazardous substance release* : 2,267 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Sulfuric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg~~ or ~~Ci~~)
Muskingum River Stack CS014	7,442
Muskingum River Stack 5	957

TOTAL - SSI trigger for this hazardous substance release* : 8,399 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Mercury

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1.1

TOTAL - SSI trigger for this hazardous substance release* : 1.1 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: selenium dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	26.5
Muskingum River Stack 5	17.7

TOTAL - SSI trigger for this hazardous substance release* : 44.2 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: calcium arsenate

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg~~ or ~~tons~~)
Muskingum River Stack CS014	7.4
Muskingum River Stack 5	8.6

TOTAL - SSI trigger for this hazardous substance release* : 16.0 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: cyanides

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	21.4
Muskingum River Stack 5	12.7

TOTAL - SSI trigger for this hazardous substance release* : 34.1 lbs.

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION I: GENERAL INFORMATION

CR-ERNS Number: 522754

Date of Initial Call to NRC: 03/13/00

Type of Report: Indicate below the type of report you are submitting.

- [X] Initial Written Notification
- [ ] First Anniversary Follow-up Report
- [ ] Written Notification of a Change to Initial Notification
- [ ] Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.40(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

Dan Kohler, Plant Manager
Name and Position

4/12/00
Date

M Studenic for DJ KOHLER
Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Muskingum River Unit Nos. 1, 2, 3 and 4; and Muskingum River Unit No. 5

Person in Charge of Facility or Vessel

Name of Person in Charge: Dan Kohler

Position: Plant Manager

Telephone No. (740) 984-3450 Alternate Telephone No. ( )

Facility Address or Vessel Port of Registration

Street: Rural Route No. 2 - Box 310 County: Morgan and Washington

City: Waterford State: OH Zip Code: 45786

Dun and Bradstreet Number for Facility: 063765341

Facility/Vessel Location

Latitude	Deg 039	Min 35	Sec 26	
Longitude	Deg 081	Min 40	Sec 46	

Vessel LORAN Coordinates

Part B. Population Information

Population Density

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

- ___ 0 - 50 persons
- ___ 101 - 500 persons
- ___ more than 1000 persons
- X 51 - 100 persons
- ___ 501 - 1000 persons

Sensitive Populations and Ecosystems Within One Mile Radius

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
State listed endangered and threatened species in the Muskingum River which borders on the north and east plant site boundaries.	Less than one mile at multiple locations

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522754

Part A: Basis for Asserting the Release Is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

1. Indicate whether the release from this source is either:

continuous without interruption _____ OR routine, anticipated, intermittent X

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of bituminous coal to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3 Identify below how you established the pattern of release and calculated release estimates.

X Past release data	X Knowledge of the facility/vessel's operations and release history	X Engineering estimate
X AP-42	X Best professional judgment	_____ Other (explain)

* *Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

AEP

Muskingum River Plant

Box 378 - Route #2
Waterford, Ohio 45786

[redacted]

To: William Sandstrom

Company: USEPA Region V

Fax: (312) 886-6064

From: James Ludwig

Fax: (740) 984-3438

Subject: Initial Continuous Release Written Notification (Revised)

Pages (Incl. cover sheet): 18

OH

712

NATIONAL RESPONSE CENTER (NRC)
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***

IRIS/NRC # 522754 — [illegible handwriting]

INCIDENT DESCRIPTION

*Report taken by: CIV REDDY at 09:00 on 13-MAR-00
Incident Type: CONTINUOUS
Incident Cause: OTHER Affected Area:
The incident occurred on 13-MAR-00 at 09:03 local time.

REPORTING PARTY

Name: GUY CERIMELE
Organization: AMERICAN ELECTRIC POWER Address: 1 RIVERSIDE PLAZA
COLUMBUS, OH 43215
AMERICAN ELECTRIC POWER called for the responsible party.
PRIMARY Phone: (614)2231295
Type of Organization: PUBLIC UTILITY

SUSPECTED RESPONSIBLE PARTY

Name: DAN KOHLER
Organization: AMERICAN ELECTRIC POWER Address: RURAL ROUTE NO.2
WATERFORD, OH 45786
PRIMARY Phone: (740)9843450
Type of Organization: PUBLIC UTILITY

INCIDENT LOCATION

RURAL ROUTE NO.2
County: WASHINGTON
WATERFORD, OH

RELEASED MATERIAL(S)

SOURCE/CAUSE OF INCIDENT

INITAL / CALELR HAD NO AMOUNT FOR UPPER BOUNDS

DAMAGES

REMEDIAL ACTIONS

NOTIFICATIONS BY NRC

ADDITIONAL INFORMATION

CHRIS Code: CCA
Official Material Name: CALCIUM ARSENATE
Also Known As:
Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: HCL
Official Material Name: HYDROCHLORIC ACID
Also Known As:
Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

NOTIFICATIONS BY NRC

CHRIS Code: HFA Official Material Name: HYDROFLUORIC ACID

Also Known As:

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: CYANIDE

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: NITROGEN DIOXIDE
Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: NITROGEN OXIDE
Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: SLD Official Material Name: SELENIUM DIOXIDE
Also Known As:

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

*** END INCIDENT REPORT # 522754 ***
Report any problems or Fax number changes by calling 1-800-424-8802

PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil

NATIONAL RESPONSE CENTER (NRC)
GOVERNMENT USE ONLYGOVERNMENT USE ONLY***

IRIS/NRC # 522755 — Combine w/ 522754

INCIDENT DESCRIPTION

*Report taken by: CIV REDDY at 09:09 on 13-MAR-00
Incident Type: CONTINUOUS
Incident Cause: OTHER Affected Area:
The incident occurred
on 13-MAR-00 at 09:13
local time.

REPORTING PARTY

Name: GUY CERIMELE
Organization: AMERICAN ELECTRIC POWER
Address: 1 RIVERSIDE PLAZA
COLUMBUS, OH 43215
AMERICAN ELECTRIC POWER called for the responsible party.
PRIMARY Phone: (614)2231295
Type of Organization: PUBLIC UTILITY

SUSPECTED RESPONSIBLE PARTY

Name: DAN KOHLER
Organization: AMERICAN ELECTRIC POWER
Address: RURAL ROUTE NO.2 > POB 310
WATERFORD, OH 45786
PRIMARY Phone: (740)9843450
Type of Organization: PUBLIC UTILITY

INCIDENT LOCATION

RURAL ROUTE NO.2
County: MORGAN
WATERFORD, OH

RELEASED MATERIAL(S)

SOURCE/CAUSE OF INCIDENT

INITIAL / CALLER HAD NO ANOUNT FOR UPPER BOUNDS

DAMAGES

REMEDIAL ACTIONS

NOTIFICATIONS BY NRC

ADDITIONAL INFORMATION

CONTINUOUS RELEASE MATERIAL

CHRIS Code: CCA
Official Material Name:
CALCIUM ARSENATE

Also Known As:

Upper Bounds: UNKNOWN
AMOUNT/UNKNOWN

CHRIS Code: HCL
Official Material Name:
HYDROCHLORIC ACID

Also Known As:
Upper Bounds: UNKNOWN
AMOUNT/UNKNOWN

NOTIFICATIONS BY NRC

CHRIS Code: HFA Official Material Name: HYDROFLUORIC ACID

Also Known As:

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: MCR Official Material Name: MERCURY

Also Known As:

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: CYANIDE
Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: NCC Official Material Name: NO CHRIS CODE

Also Known As: NITROGEN DIOXIDE
Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: NCC Official Material Name: NO CHRIS CODE
Also Known As: NITROGEN OXIDE

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: SFA Official Material Name: SULFURIC ACID
Also Known As:

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

CHRIS Code: SLD Official Material Name: SELENIUM DIOXIDE

Also Known As:

Upper Bounds: UNKNOWN AMOUNT/UNKNOWN

*** END INCIDENT REPORT # 522755 ***
Report any problems or Fax number changes by calling 1-800-424-8802

PLEASE VISIT OUR WEB SITE AT http://www.nrc.uscg.mil

American Electric Power
1 Riverside Plaza
Columbus, OH 43215-2373
614 223 1000

OH (112)

AEP
AMERICAN ELECTRIC POWER

May 11, 2001

Entered in CR-ERNS
"Processed" Pile

U.S. EPA Region V
Office of CEPP Chemical Preparedness
77 West Jackson Blvd.
Chicago, IL 60604

Re: American Electric Power
Annual Follow-up Continuous Release Notification

Dear Sir or Madam:

Please find enclosed first anniversary follow-up reports on continuous release notifications for the following facilities:

Facility Name	CR-ERNS Number	Facility Location
Big Sandy Plant	522751	Louisa, KY 41230
Cardinal Plant	522824, 522825 & 522827	Brilliant, OH 43913
Conesville Plant	522818, 522820, 522822 & 522823	Conesville, OH 43811
Gavin Plant	522747 & 522748	Cheshire, OH 45620
Kammer Plant	522800	Moundsville, WV 26041
Mitchell Plant	522794	Moundsville, WV 26041
Mountaineer Plant	522753	New Haven, WV 25265
Muskingum River Plant	522754 & 522755 ← Revised	Waterford, OH 45786
Picway Plant	522789	Lockbourne, OH 43137
Rockport Plant	522778	Rockport, IN 47635
Philip Sporn Plant	522816 & 522817	New Haven, WV 25265

These reports are being submitted in accordance with 40 CFR §302.8 to follow up initial written notifications made in May 2000. These reports were prompted by the issuance of an interim guidance document by the Environmental Protection Agency on December 21, 1999 giving notice of specific interpretations of the definition of a "federally permitted release" under Section 101 (10)(H) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). AEP does not agree with the positions announced in the guidance and has participated in the review and evaluation of the initial guidance and subsequent guidance documents. However, the enclosed reports are based on the interpretations announced in the interim guidance.

Please note that the emissions reported in the enclosed reports represent a range of levels at which individual hazardous constituents may be present in the emissions associated with the normal operations of the major sources at our power plants. They do not represent "emergency" conditions, pose threats to public health or welfare or require specific emergency response or planning activities. Actual emissions will vary with hours of operation, fuel quality and other factors.

If you have any questions concerning the enclosed reports, please contact me at (614) 223-1246.

Sincerely,

Thomas R. Zelina

Thomas R. Zelina
Manager, Waste Management and Mediation Services

SECTION I: GENERAL INFORMATION

CR-ERNS Number: ~~522755~~ and 522754

Date of Initial Call to NRC: 03/13/00

Type of Report: Indicate below the type of report you are submitting.

- [ ] Initial Written Notification
- [x] First Anniversary Follow-up Report
- [ ] Written Notification of a Change to Initial Notification
- [ ] Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

Dan Kohler, Plant Manager
Name and Position

May 10, 01
Date

Dan Kohler
Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Muskingum River Unit Nos. 1, 2, 3 and 4; and Muskingum River Unit No. 5

Person in Charge of Facility or Vessel:
Name of Person in Charge: Dan Kohler
Position: Plant Manager
Telephone No. (740) 984-3450 Alternate Telephone No. ( )

Facility Address or Vessel Port of Registration:
Street: Rural Route No. 2 - Box 310 County: Morgan and Washington
City: Waterford State: OH Zip Code: 45786

Dun and Bradstreet Number for Facility: 063765341

Facility/Vessel Location:
Latitude Deg 039 Min 35 Sec 26
Longitude Deg 081 Min 40 Sec 46

Vessel LORAN Coordinates:

Part B. Population Information

Population Density: Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

- ___ 0 - 50 persons
- [x] 51 - 100 persons
- ___ 101 - 500 persons
- ___ 501 - 1000 persons
- ___ more than 1000 persons

Sensitive Populations and Ecosystems Within One Mile Radius:

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
State listed endangered and threatened species	Less than one mile at multiple locations

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__ .

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3. Identify below how you established the pattern of release and calculated release estimates.

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

* *Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack CS014

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** __X__ (stack __X__ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~ **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____ , lake ____ , or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack CS014

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. ~~or kg per~~ day)* Upper Bound	Normal Range (in lbs. ~~or kg per~~ day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Nitrogen oxide	10102439	430,062	194,207	365	30,012,000 ~15006	12
Nitrogen dioxide	10102440	22,635	10,221	365	1,600,000 ~TNS	12
Hydrochloric acid	7647010	21,150	9,015	365	2,400,000	12
Hydrogen fluoride	7664393	1,418	605	365	268,000	12
Sulfuric acid	7664939	7,826	3,013	365	1,314,000	12
Mercury	7439976	1.2	0.5	365	349	12
Selenium dioxide	7446084	39.0	11.8	365	7,820	12
Calcium arsenate	7778441	10.5	2.7	365	988	12
Cyanides	57125	25.1	10.2	365	4,902	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION II: SOURCE INFORMATION

CR-ERNS Number: 522755 and 522754

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

1. Indicate whether the release from this source is either:

continuous without interruption _____ **OR** routine, anticipated, intermittent __X__.

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

The releases associated with this source result from the combustion of fossil fuels to produce steam energy for production of electricity.

Calculations for releases of identified substances include periods of startup and shutdown and certain circumstances that may be defined as malfunctions under other state and federal regulatory programs but meet the requirements for inclusion in 40 CFR Part 302.8 Continuous Releases, and as incorporated by reference into 40 CFR Part 355 Emergency Planning and Notification.

3. Identify below how you established the pattern of release and calculated release estimates.

__X__ Past release data	__X__ Knowledge of the facility/vessel's operations and release history	__X__ Engineering estimate
__X__ AP-42	__X__ Best professional judgment	_____ Other (explain)

* *Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.*

SECTION II: SOURCE INFORMATION (continued)	CR-ERNS Number: 522755 and 522754

Name of Source: Muskingum River Stack 5

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

⊘ **AIR** _X_ (stack _X_ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: 828 feet ~~or meters~~; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: _____ square feet or square meters.

⊘ **SURFACE WATER** ____ (stream ____, lake ____, or other _____)

- If the release affects any **surface water body**, give the name of the water body.

  _____

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.

  stream order: ____ or average flow rate: ____ cubic feet/second; **OR**

- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.

  surface area of lake: ____ acres and average depth of lake: ____ meters.

⊘ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

_____

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

- For a stack release to air, provide the following information, if available:

  Inside diameter _____ feet or meters
  Gas Exit Velocity _____ feet/second or meters/second
  Gas Temperature _____ degrees Fahrenheit, Kelvin, or Celsius

- For a release to surface water, provide the following information, if available:

  Average Velocity _____ feet/second of Surface Water

SECTION II: SOURCE INFORMATION (continued)

CR-ERNS Number: 522755 and 522754

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source: Muskingum River Stack 5

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Hazardous Substance	CASRN #	Normal Range (in lbs. ~~or kg~~ per day)* Upper Bound	Normal Range (in lbs. ~~or kg~~ per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity Released in Previous Year (in lbs. ~~or kg~~)*	Months of the Release
Nitrogen oxide	10102439	127,717	126,507	365	23,400,000	12
Nitrogen dioxide	10102440	6,722	3,775	365	1,200,000	12
Hydrochloric acid	7647010	13,655	6,692	365	3,400,000	12
Hydrogen fluoride	7664393	916	449	365	221,000	12
Sulfuric acid	7664939	1,053	361	365	144,000	12
Selenium dioxide	7446084	25.1	8.7	365	6,630	12
Calcium arsenate	7778441	11.5	2.2	365	728	12
Cyanides	57125	14.1	8.3	365	3,902	12
Mercury	7439976	0.7	0.3	365	153	12

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

Name of Mixture	Name of Hazardous Substance Components	CASRN#	Weight Percentage	Normal Range of Components (in lbs. or kg per day)* Upper Bound	Normal Range of Components (in lbs. or kg per day)* Lower Bound	Normal Range of Mixture (in lbs. or kg per day)* Upper Bound	Normal Range of Mixture (in lbs. or kg per day)* Lower Bound	Number of Days Release Occurs (per year)	Total Quantity of Mixture Released in Previous Year (in lbs. or kg)	Months of the Release

* *Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen oxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Ci~~)
Muskingum River Stack CS014	430,062
Muskingum River Stack 5	127,717

TOTAL - SSI trigger for this hazardous substance release* : 557,779

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Nitrogen dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	22,635
Muskingum River Stack 5	6,722

TOTAL - SSI trigger for this hazardous substance release* : 29,357

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrochloric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	21,150
Muskingum River Stack 5	13,655

TOTAL - SSI trigger for this hazardous substance release* : 34,805

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Hydrogen fluoride

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	1,418
Muskingum River Stack 5	916

TOTAL - SSI trigger for this hazardous substance release* : 2,334

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Sulfuric acid

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Gi~~)
Muskingum River Stack CS014	7,826
Muskingum River Stack 5	1,053

TOTAL - SSI trigger for this hazardous substance release* : 8,879

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: Mercury

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., kg, or Ci)
Muskingum River Stack CS014	1.2
Muskingum River Stack 5	0.7

TOTAL - SSI trigger for this hazardous substance release* : 1.9

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: selenium dioxide

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg or Ci~~)
Muskingum River Stack CS014	39.0
Muskingum River Stack 5	25.1

TOTAL - SSI trigger for this hazardous substance release* : 64.1

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: calcium arsenate

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	10.5
Muskingum River Stack 5	11.5

TOTAL - SSI trigger for this hazardous substance release* : 22.0

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

SECTION III: SUBSTANCE INFORMATION

CR-ERNS Number: 522755 and 522754

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance: cyanides

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)	Upper Bound of the Normal Range of the Release (specify lbs., ~~kg, or Ci~~)
Muskingum River Stack CS014	25.1
Muskingum River Stack 5	14.1

TOTAL - SSI trigger for this hazardous substance release* : 39.2

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

OH 112

AEP
OHIO
A unit of American Electric Power

AEP Ohio
Muskingum River Plant
1501 Sparling Road
Waterford, OH 45786-6104
AEPOhio.com

CERTIFIED MAIL
Return Receipt Requested

March 4, 2009

U. S. EPA Region V
Office of CEEP Chemical Preparedness
77 West Jackson Boulevard
Chicago, Illinois 60604

Subject: **First Anniversary Follow-up Report – Muskingum River Plant**

Dear Mr. Sandstrom:

This letter is submitted as the First Anniversary Follow-up Report to the notification made on February 7, 2008 at 3:25 p.m. EST, by Mr. Joseph Campbell of Ohio Power Company, who, at that time notified the National Response Center (NRC) of a change in the normal range of continuous release of Sulfuric Acid, a reportable substance, from our Muskingum River Plant (CR-ERNS #522755 and #522754). The February 7, 2008 notification of change revised the normal range of emissions for Sulfuric Acid (CASRN # 7664939) from Unit 5 of the Muskingum River Plant. The range was revised to be from 2,097 to 17,799 pounds per 24-hour period for Unit 5. A written report was submitted on March 5, 2008.

These sulfuric acid emissions are routine in nature, anticipated, intermittent and incidental to the normal operation of the facility. Based upon these characteristics, these emissions are eligible for continuous release reporting. Actual releases will vary with seasonal operation of the equipment, actual hours of operation, fuel quality and other factors, but the released quantity will remain within these newly established ranges.

This First Anniversary Follow-up Report is a release information update in which no changes are being made to the detailed information previously submitted. Therefore, we are only revising the signed Section I to indicate the type of report.

Please find enclosed an original signed "First Anniversary Follow-up Report" (Section I) for Muskingum River Plant. Copies of the previously submitted Section II, (Source Information) for each emissions unit and Section III, calculation of the SSI (Upper Bound) for each reported substance are attached for your information.

If you have any questions concerning this notice, please do not hesitate to contact James D. Ludwig by telephone at (740) 984-3468 or by e-mail at jdludwig@aep.com.

Sincerely,

David D. Wickline
General Plant Manager
Muskingum River Plant

Enclosure

SECTION I: GENERAL INFORMATION	CR-ERNS Number: ~~522755~~ and 522754
Date of Initial Release:	Date of Initial Call to NRC: 03/13/00

Type of Report: Indicate below the type of report you are submitting.

☐ Initial Written Notification ☒ First Anniversary Follow-up Report ☒ Written Notification of a Change to Initial Notification ☐ Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

David Wickline, Plant Manager
Name and Position

3/5/2009
Date

Signature

Part A. Facility or Vessel Information

Name of Facility or Vessel: Muskingum River Unit Nos. 1,2,3, and 4; and Muskingum River Unit No. 5

Person in Charge of Facility or Vessel

Name of Person in Charge: David Wickline
Position: Plant Manager
Telephone No. (740) 984-2321 Alternate Telephone No. ( )

Facility Address or Vessel Port of Registration

Street: Rural Route No. 2 - Box 310 County: Morgan & Washington
City: Waterford State: OH Zip Code: 45786

Dun and Bradstreet Number for Facility: 063765341

Facility/Vessel Location

Latitude	Deg 039	Min 35	Sec 25	
Longitude	Deg 081	Min 40	Sec 46	

Vessel LORAN Coordinates:

Part B. Population Information

Population Density

Choose the range that describes the population density within a one-mile radius of your facility or vessel (Indicate by placing an "X" in the appropriate blank below).

___ 0 - 50 persons ___ 101 - 500 persons ___ more than 1000 persons
X 51 - 100 persons ___ 501 - 1000 persons

Sensitive Populations and Ecosystems Within One Mile Radius

Sensitive Populations or Ecosystems (e.g., schools, hospitals, wetlands, wildlife preserves, etc.)	Distance and direction from facility
State Listed endangered and threatened species	Less than one mile at multiple locations

cc w/att:

Ohio Environmental Protection Agency
Attn: State Emergency Response Commission
122 South Front Street
Columbus, OH 43215

LEPC Miranda Mullen
Morgan Cnty. EMA Director
60 South Fourth St.
McConnelsville, OH 43756

LEPC Jeff Lauer
Washington Cnty. LEPC
205 Putnam St.
Marietta, OH 45750

Beverly Volunteer Fire Department
204 Fifth Street
Beverly, OH 45715

Ohio Environmental Protection Agency
Attn: Mr. Dean Ponchak
2195 Front Street
Logan, OH 43138